

Proposed Claim Amendments

1. (Currently Amended) A tire whose tread comprises ~~at least one a~~ plurality of first tread elements ~~element~~ and ~~at least one a plurality of second tread element~~ elements, each of the first and second tread elements having a contact surface that, during normal operation of a vehicle wheel equipped with the tire, comes into contact with the ground in a contact area on each revolution of the tire, the first and second tread elements being configured such that, at least under a first rolling condition, the contact surfaces ~~surface of the at least one first tread element~~ slide ~~elements slide~~ relative to the ground during ~~[[its]]~~ passage through the contact area, ~~while~~ whereas the contact surfaces of the at ~~least one second tread element does~~ elements do not slide under the first rolling condition, the ~~at least one first tread element~~ elements each comprising a sensor capable of producing a signal representative making a measurement of a level of tangential force in the contact surface of the respective at least one first tread element during ~~[[its]]~~ passage through the contact area, wherein all of the first tread elements are substantially the same element, and an estimate of a tangential force on the vehicle wheel is obtainable ~~[[obtained]]~~ based on the signal produced by each of the at least one first tread element elements, ~~the sensor in each first tread element producing a signal proportional to the tangential force acting upon that first tread element.~~

7. (Currently Amended) A tire according to claim 1, in which each of the first tread ~~element~~ elements, viewed at the surface of the tread, has a central zone surrounded by an encircling zone, the sensor of each of the first tread elements being

disposed so as to achieve a measurement in the central zone and being sensitive to at least one tangential force exerted at the surface of the central zone, wherein:

the surface area of the central zone is at least substantially equivalent to the surface area of the encircling zone,

the surface of the central zone is located at a distance from the wheel axle that is less than the distance of a surface of the encircling zone, and

wherein the central zone has a resistance to a force directed perpendicular to the surface of the tread which is less than a resistance to a force directed perpendicular to the surface of the tread offered by the encircling zone.

34. (New) A system for determining conditions of dynamic engagement between a vehicle tire and a roadway, the system comprising:

a tire whose tread comprises at least one first tread element and at least one second tread element, each of the first and second tread elements having a contact surface that, during normal operation of a vehicle wheel equipped with the tire, comes into contact with the ground in a contact area on each revolution of the tire, the first and second tread elements being configured such that, at least under a first rolling condition, the contact surface of the at least one first tread element slides relative to the ground during its passage through the contact area, whereas the at least one second tread element does not slide under the first rolling condition;

a sensor provided within the at least one first tread element, the sensor being configured to output a signal representative of a tangential force in the contact surface of the at least one first tread element during its passage through the contact area; and

a processor configured to receive the signal output by the sensor and
determine an estimate of a tangential force on the vehicle wheel based on the signal output
by the sensor.

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